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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|----------------------------|------------------|
| 10/713,185 | 11/15/2003 | Varadarajan Srinivasan | NLMI.P138 | 9807 |
| 7590 01/10/2006 | | | | |
| Shemwell Gregory & Courtney LLP Suite 201 4880 Stevens Creek Boulevard San Jose, CA 95129 | | | EXAMINER NGUYEN, DANG T | |
| | | | ART UNIT 2824 | PAPER NUMBER |

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,185

Applicant(s)

SRINIVASAN ET AL.

Examiner

Dang T. Nguyen

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-35 and 62-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28, 34 - 35 and 62 is/are rejected.
- 7) ☒ Claim(s) 29-33 and 63-67 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/8/04 & 8/12/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: search history.

DETAILED ACTION

1. This action is responsive to applicant's remarks filed on 11/23/05. Claims 28 – 35 and 62 – 67 are pending on this application. Claims 28 and 62 are independent claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28, 34 – 35 and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Nataraj et al., Pub. No. US 2002/0161969 A1, Pub. Date: Oct. 31, 2002.

Regarding independent claim 28, Figure 12 of Nataraj discloses a content addressable memory (CAM) device [1200] comprising:

an array of CAM cells [1201];

a write mapping circuit (Fig. 16 [1615]) to convert an input data word into a converted data word having one of at least two different patterns of constituent bits (Page 2 paragraph [0011] lines 3-4) according to the state of a first control signal (Page 2, paragraph [0011] lines 5-8); and

a read/write circuit [1211] coupled to receive the converted data word from the write mapping circuit (see Figs. 12 and 16) and coupled to the array of CAM cells [1201] to output the converted data word thereto (Page 2, paragraph [0011]).

Regarding dependent claim 34, Figs. 12, 16 and 19 of Nataraj disclose further comprising a write data selector having a first input port coupled to receive the converted data word from the write mapping circuit and a second input port coupled to receive the input data word, the write data selector being responsive to a second control signal to output either the converted data word or the input data word to the read/write circuit (Page 2, paragraph [0011]).

Regarding dependent claim 35, Figs. 12 and 18 of Nataraj disclose further comprising a read mapping circuit (Fig. 18 [READ CIRCUIT]) coupled to receive a read data word from the read/write circuit and configured to convert the read data word into a converted data word having one of at least two different patterns of constituent bits according to the state of the first control signal (Page 2, paragraph [0011] and page 16 paragraph [0192]).

Regarding independent claim 62, Natataj discloses a method of operation within a content addressable memory (CAM) device (Fig. 12 [1200]), the method comprising:

receiving a control signal (Page 23, paragraph [0230] line 5)

receiving an input data word (Page 10, paragraph [0155] lines 1-2)

converting the input data word into a converted data word having a first pattern of constituent bits (Page 2 paragraph [0011] line 4 and Page 46, claim 57 lines 5-6) if the control signal is in a first state (Page 2, paragraph [0011] line 6);

converting the input data word into a converted data word having a second pattern of constituent bits (Page 2 paragraph [0011] line 4 and Page 46, claim 57 lines

8-10); if the control signal is in a first state (Page 2, paragraph [0011] line 6); and storing the converted data word in an array of CAM cells (Page 2, paragraph [0011] lines 7-8).

Allowable Subject Matter

3. Claims 29-33 and 63-67 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 29, the primary reason for indication of allowable subject matter is that the prior art fails to teach or suggest "the two different patterns of bits comprise equal numbers of bits".

With respect to claims 30 and 64, the primary reason for indication of allowable subject matter is that the prior art fails to teach or suggest "each set of four bits within the converted data word includes 2(to R) bits in a first state and the remaining bits in a second state if the first control signal selects a first conversion mode, R being the number of mask bits in a masking state within a group of two data/mask bit pairs".

With respect to claim 63, the primary reason for indication of allowable subject matter is that the prior art fails to teach or suggest "the first pattern of constituent bits includes the same number of bits as the second pattern of constituent bits".

Claims 31-33 and 64-67 are allowed based on dependent claims 30 and 64 above.

Response to Arguments

4. Applicant's remarks on 11/23/05 have been considered but are moot in view of the new ground(s) of rejection.

Prior art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gibson et al. Patent No.: US 6,275,406 B1 Date of Patent: Aug. 14, 2001

Kim et al. Patent No.: US 6,584,003 B1 Date of Patent: Jun. 24, 2003

Contact Information

6. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

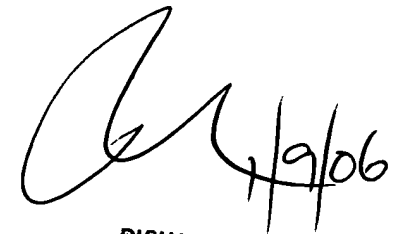
Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC@uspto.gov.

Dang Nguyen 1/9/2006



RICHARD ELMS
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